CLAIMS

We claim:

5   1.   A method for determining members of a group, comprising the steps of:

determining nested members of a first group; and

reporting said nested members of said first group.

10   2.   A method according to claim 1, wherein:

said nested members include members of multiple levels of nested groups.

3.   A method according to claim 1, wherein:

said step of determining nested members includes recursively determining

15   members of group members.

4.   A method according to claim 1, wherein said step of determining

nested members includes the steps of:

determining all static group members of said first group;

20   determining all static and dynamic members of said group members of said

first group;

determining all group members of said group members of said first group; and

determining all static and dynamic members of said group members of said

group members of said first group.

25

5.   A method according to claim 1. further comprising the steps of:

determining dynamic members of said first group; and

reporting said dynamic members of said first group.

30   6.   A method according to claim 5, wherein:

said first group and nested groups of said first group include rules defining

criteria for being dynamic members.

7.   A method according to claim 6, wherein said step of determining dynamic members includes the steps of:

determining a normalized set of said rules; and

determining which users are defined by said normalized set of said rules, said users defined by said normalized set of said rules are said dynamic members of said first group.

8.   A method according to claim 5, further comprising the steps of:

storing an identification of said nested members and said dynamic members in one or more attributes of said first group; and

reporting said nested members and said dynamic members from said one or more attributes of said first group, without repeating said steps of determining dynamic members and determining nested members, in response to a request for members of said first group.

9.   A method according to claim 5, further comprising the steps of:

storing an identification of said nested members and said dynamic members in a static member attribute of said first group; and

reporting said nested members and said dynamic members from said static member attribute of said first group, without repeating said steps of determining dynamic members and determining nested members, in response to a request for members of said first group.

10.   A method according to claim 1, further comprising the steps of:

determining static members of said first group;

determining dynamic members of said first group; and

reporting said static members and said dynamic members of said first group.

11.   A method according to claim 10, wherein:

said nested members include members of multiple levels of nested groups; and

said step of determining nested members includes recursively determining members of group members.

12. A method according to claim 11, wherein:

5   said first group and nested groups of said first group include rules defining criteria for being dynamic members; and

said step of determining dynamic members includes determining a normalized set of said rules and determining which users are defined by said normalized set of said rules, said users defined by said normalized set of said rules are said dynamic

10   members of said first group.   .

13. A method according to claim 10, wherein:

said nested members include members of multiple levels of nested groups; and

said steps of determining nested members, determining static members and

15   determining dynamic members are performed by an integrated identity and access system.

14. A method according to claim 13, wherein:

said integrated identity and access system is capable of performing

20   authorization services based on membership in said first group.

15. A method for identifying members of a group, comprising the steps of:

determining dynamic members of a first group;

storing an identification of each of said dynamic members of said first group;

25   receiving a request to report members of said first group, said request is received subsequent to said step of storing; and

reporting said dynamic members of said first group in response to said request, said reporting of said dynamic members is performed based on said stored identification of said dynamic members.

30

16. A method according to claim 15, wherein:

said first group includes one or more static members;

an identification of each of said static members is stored in a static member attribute for an identity profile of said first group; and

said identification of each of said dynamic members is stored in said static member attribute for said identity profile of said first group.

5

17.   A method according to claim 15, wherein:

said first group includes one or more static members;

an identification of each of said static members is stored in a static member attribute for an identity profile of said first group;

10   said identity profile of said first group also includes an expansion attribute; and

said method can only be performed if said expansion attribute includes an appropriate value.

15   18.   A method according to claim 17, wherein:

said identity profile of said first group also includes a dynamic rule attribute which stores a rule that defines dynamic membership for said first group; and

said method can only be performed for an entity having access to said expansion attribute and said dynamic rule attribute.

20

19.   A method according to claim 15, wherein:

said steps of determining and storing are automatically repeated.

20.   A method according to claim 15, wherein:

25   said steps of determining, storing and receiving are performed by an integrated identity and access system.

21.   A method according to claim 20, wherein:

said integrated identity and access system is capable of performing

30   authorization services based on membership in said first group.

22.   A method according to claim 15, further comprising the steps of:

determining nested members of said first group; and

storing an identification of each of said nested members of said first group, said step of reporting includes reporting said nested members based on said stored identification of said nested members.

5

23. A method according to claim 22, wherein:

said nested members include members of multiple levels of nested groups.

24. A method according to claim 22, wherein:

10 said step of determining nested members includes recursively determining members of group members.

25. A method according to claim 22, wherein:

said first group includes one or more static members; and

15 said step of reporting includes reporting said static members.

26. A method according to claim 15, wherein said step of determining nested members includes the steps of:

determining all static group members of said first group;

20 determining all static and dynamic members of said static group members of said first group;

determining all static group members of said static group members of said first group; and

determining all members of said static group members of said static group

25 members of said first group.

27. A method according to claim 15, wherein:

said first group and nested groups of said first group include rules defining criteria for being dynamic members; and

30 said step of determining dynamic members includes the steps of determining a normalized set of said rules and determining which users are defined by said normalized set of said rules, said users defined by said normalized set of said rules are

said dynamic members of said first group.

28. A method according to claim 15, wherein:

said first group includes one or more static members; and

5   said step of reporting includes reporting said static members.

29. One or more processor readable storage devices having processor readable code embodied on said processor readable storage devices, said processor readable code for programming one or more processors to perform a method

10 comprising the steps of:

determining nested members of a first group; and

reporting said nested members of said first group.

30. One or more processor readable storage devices according to claim 29,

15 wherein:

said nested members include members of multiple levels of nested groups.

31. One or more processor readable storage devices according to claim 29,

wherein:

20   said step of determining nested members includes recursively determining

members of group members.

32. One or more processor readable storage devices according to claim 29,

wherein said method further comprises the steps of:

25   determining static members of said first group;

determining dynamic members of said first group; and

reporting said static members and said dynamic members of said first group.

33. One or more processor readable storage devices according to claim 32,

30 wherein:

said nested members include members of multiple levels of nested groups;

said step of determining nested members includes recursively determining

members of group members;

said first group and nested groups of said first group include rules defining criteria for being dynamic members; and

said step of determining dynamic members includes determining a normalized set of said rules and determining which users are defined by said normalized set of said rules, said users defined by said normalized set of said rules are said dynamic members of said first group.

34. One or more processor readable storage devices according to claim 32, wherein:

said nested members include members of multiple levels of nested groups; and

said steps of determining nested members, determining static members and determining dynamic members are performed by an integrated identity and access system.

35. One or more processor readable storage devices having processor readable code embodied on said processor readable storage devices, said processor readable code for programming one or more processors to perform a method comprising the steps of:

determining dynamic members of a first group;

storing an identification of each of said dynamic members of said first group; and

receiving a request to report members of said first group, said request is received subsequent to said step of storing; and

reporting said dynamic members of said first group in response to said request, said reporting of said dynamic members is performed based on said stored identification of said dynamic members.

36. One or more processor readable storage devices according to claim 35, wherein:

said first group includes one or more static members; and

said step of reporting includes reporting said static members.

37.   One or more processor readable storage devices according to claim 36, wherein:

said steps of determining and storing are automatically repeated.

38.   One or more processor readable storage devices according to claim 36, wherein:

said steps of determining, storing and receiving are performed by an integrated identity and access system.

39.   One or more processor readable storage devices according to claim 36, wherein said method further comprises the steps of:

determining nested members of said first group, said nested members include members of multiple levels of nested groups; and

storing an identification of each of said nested members of said first group, said step of reporting includes reporting said nested members based on said stored identification of said nested members.

40.   An apparatus that can determine members of a group, comprising:

a communication interface; and

one or more processor in communication with said communication interface, said one or more processor perform a method comprising the steps of:

determining nested members of a first group, and

reporting said nested members of said first group.

41.   An apparatus according to claim 40, wherein:

said nested members include members of multiple levels of nested groups.

42.   An apparatus according to claim 41, wherein said method further comprises the steps of:

determining static members of said first group;

determining dynamic members of said first group; and

reporting said static members and said dynamic members of said first group.

43.   An apparatus according to claim 42, wherein:

said first group and nested groups of said first group include rules defining criteria for being dynamic members; and

said step of determining dynamic members includes determining a normalized set of said rules and determining which users are defined by said normalized set of said rules, said users defined by said normalized set of said rules are said dynamic members of said first group.

44.   An apparatus that can determine members of a group, comprising:

a communication interface; and

one or more processor in communication with said communication interface, said one or more processor perform a method comprising the steps of:

determining dynamic members of a first group, said first group includes one or more static members,

storing an identification of each of said dynamic members of said first group, and

receiving a request to report members of said first group, said request is received subsequent to said step of storing, and

reporting said static members and said dynamic members of said first group in response to said request, said reporting of said dynamic members is performed based on said stored identification of said dynamic members.

45.   An apparatus according to claim 44, wherein:

said steps of determining and storing are automatically repeated.

46.   An apparatus according to claim 44, wherein:

said steps of determining, storing and receiving are performed by an integrated identity and access system.

47.   An apparatus according to claim 44, wherein said method further comprises the steps of:

determining nested members of said first group, said nested members include members of multiple levels of nested groups; and

5   storing an identification of each of said nested members of said first group, said step of reporting includes reporting said nested members based on said stored identification of said nested members.